Claims in Current Form

1. (currently amended) A method for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of manufacturing parameters, the method comprising the steps of

storing the plurality of manufacturing parameters in a data warehouse;

applying a data mining program to perform the steps of:

analyzing the stored manufacturing parameters to define a first normal ~~manufacturing parameter~~ subset, said first normal subset comprising a subset of said plurality of manufacturing parameters of products which show similar performance ratings;

comparing manufacturing parameters associated with at least one product with the manufacturing parameters contained within said first normal subset;

detecting at least one ~~of the plurality of~~ manufacturing parameter[[s]] associated with said at least one product that is excluded from the first normal subset; and

reporting the at least one detected manufacturing parameter.

2. (currently amended) The method of claim 1, wherein the step of applying the data mining program comprises detecting that a plurality of the manufacturing parameters associated with said at least one product are excluded from the first normal subset.

3. (original) The method of claim 2, wherein the step of applying the data mining program further comprises analyzing the detected plurality of

manufacturing parameters to define a second normal subset of the detected plurality of manufacturing parameters.

4. (original) The method of claim 3, comprising reporting the second normal subset of manufacturing parameters.

5. (original) The method of claim 4, wherein the first normal subset of manufacturing parameters is defined by categorizing the manufacturing parameters in an n-dimensional space.

6. (original) The method of claim 5, wherein the second normal subset of manufacturing parameters is defined by categorizing the manufacturing parameters excluded from the first normal subset in the n-dimensional space using the data mining program.

7. (currently amended) A system for identifying manufacturing anomalies in a manufacturing system comprising a plurality of products which are manufactured with a plurality of manufacturing parameters, comprising:

a data warehouse for storing the plurality of manufacturing parameters;

a data mining program applied to the data warehouse for analyzing the stored manufacturing parameters to define a first normal ~~manufacturing parameter~~ subset, said first normal subset comprising a subset of said plurality of manufacturing parameters of products which show similar performance ratings, comparing manufacturing parameters associated with at least one product with the manufacturing parameters contained within said first normal subset, and detecting at least one ~~of the plurality of~~ manufacturing parameter[[s]] associated with said at least one product that is excluded from the first normal subset; and

a reporting means for reporting the at least one detected manufacturing parameter.

8. (currently amended) The system of claim 7, wherein the data mining program is for detecting that a plurality of the manufacturing parameters associated with said at least one product are excluded from the first subset.

9. (original) The system of claim 8, wherein the data mining program is further for analyzing the detected plurality of manufacturing parameters to define a second normal subset of the detected plurality of manufacturing parameters.

10. (original) The method of claim 9, wherein the reporting means is for reporting the second normal subset of manufacturing parameters.

11. (original) The system of claim 10, wherein the data mining program is for defining the first normal subset of manufacturing parameters by categorizing the manufacturing parameters in an n-dimensional space.

12. (original) The system of claim 11, wherein the data mining program is for defining the second normal subset of manufacturing parameters by categorizing the manufacturing parameters excluded from the first normal subset in the n-dimensional space.